```python
import pandas as pd
import matplotlib.pyplot as plt
from sklearn.cluster import KMeans
```

```python
data = pd.read_csv('Mall_Customers.csv')
data.head()
```

	CustomerID	Genre	Age	Annual Income (k$)	Spending Score (1-100)
0	1	Male	19	15	39
1	2	Male	21	15	81
2	3	Female	20	16	6
3	4	Female	23	16	77
4	5	Female	31	17	40

```python
X = data[['Annual Income (k$)', 'Spending Score (1-100)']]
X.head()
```
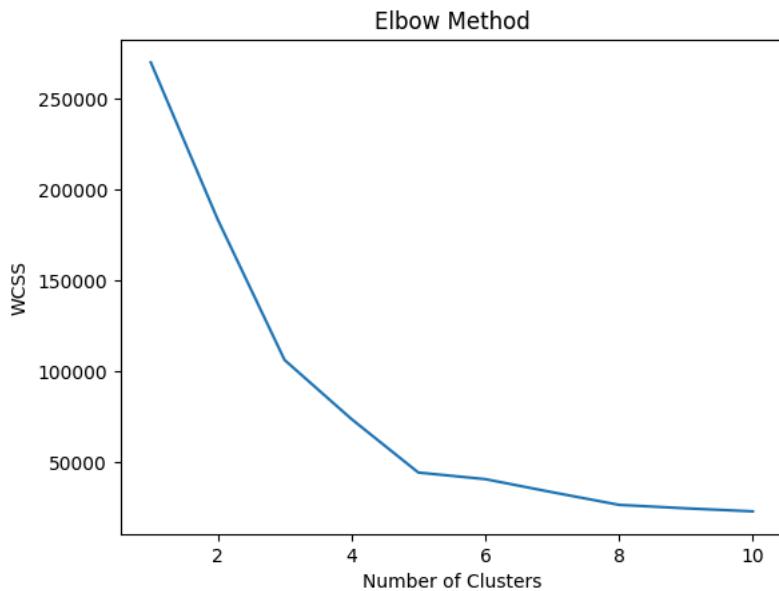
	Annual Income (k$)	Spending Score (1-100)
0	15	39
1	15	81
2	16	6
3	16	77
4	17	40

```python
import matplotlib.pyplot as plt
from sklearn.cluster import KMeans

wcss = []

for i in range(1, 11):
    kmeans = KMeans(n_clusters=i, random_state=42)
    kmeans.fit(X)
    wcss.append(kmeans.inertia_)

plt.plot(range(1, 11), wcss)
plt.xlabel('Number of Clusters')
plt.ylabel('WCSS')
plt.title('Elbow Method')
plt.show()
```

```
kmeans = KMeans(n_clusters=5, random_state=42)
y_kmeans = kmeans.fit_predict(X)
```

```
plt.scatter(X.iloc[:, 0], X.iloc[:, 1], c=y_kmeans)
plt.xlabel('Annual Income (k$)')
plt.ylabel('Spending Score')
plt.title('Customer Segmentation using K-Means')
plt.show()
```